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# SKY GIANTS

By WILLIAM H. ZELINSKI, M. E. IV

"JAPAN BOMBED"—"TOYKO IN FLAMES." These headlines are almost routine to the news-hungry populace of the United States. But how did those bombs get to their destination—fly? That's right, but no mere Fortress or Liberator carries the bomb load or fuel supply necessary to make a successful raid on the Japanese homeland. This job calls for something special . . . B-29!

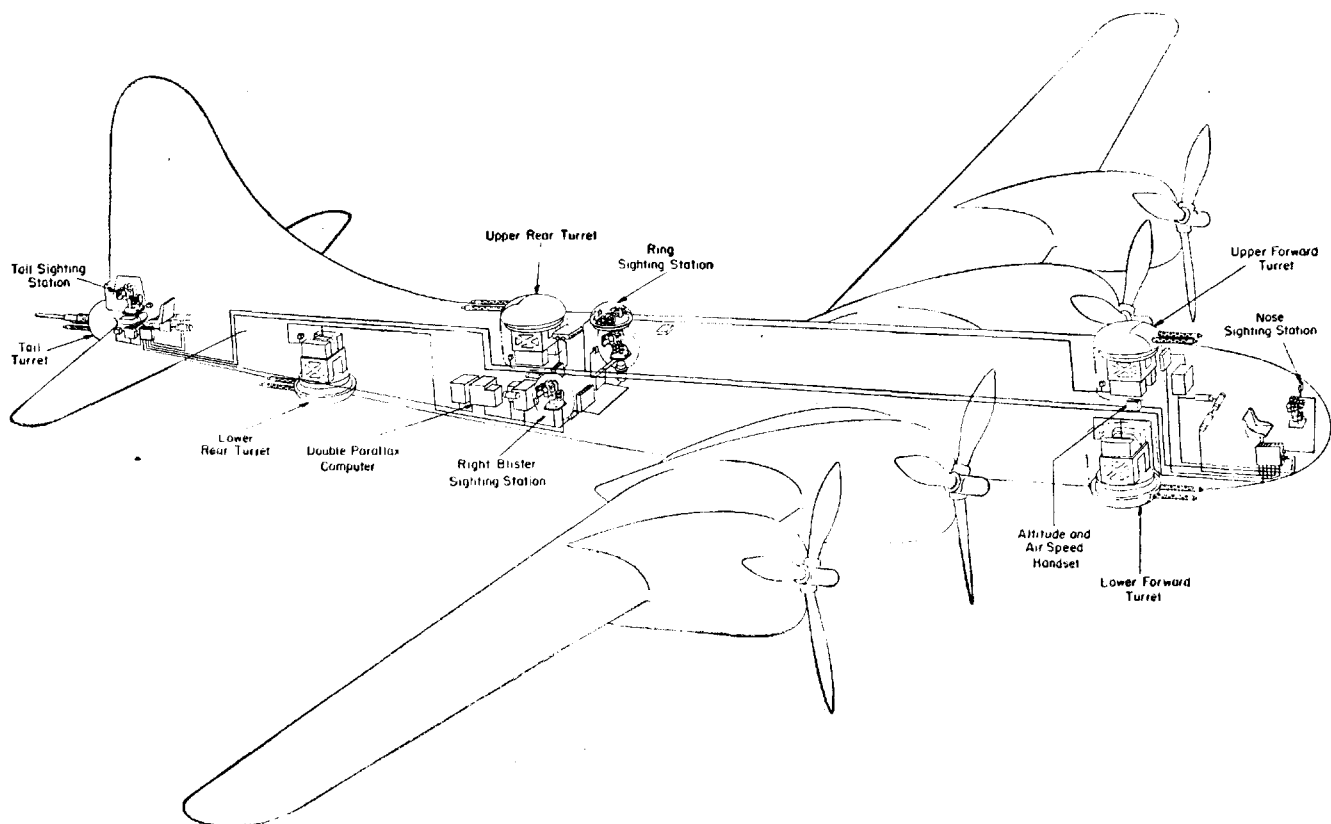
These dragons of the sky are of the fire-breathing variety—fire breathing in every sense of the word. 20 millimeter cannons and .50 caliber machine guns cover a complete sphere of fire around the plane. A central fire control system makes it possible for the gunners to control the fire of the guns in five turrets from remotely located sighting stations within the pressurized cabin. It is possible for one gunner to concentrate the fire from all five of the turrets on the same target or for him to use just one or two of the turrets.

Mechanical and electrical "brains" automatically make corrections for lead, gravity, windage, and parallax.

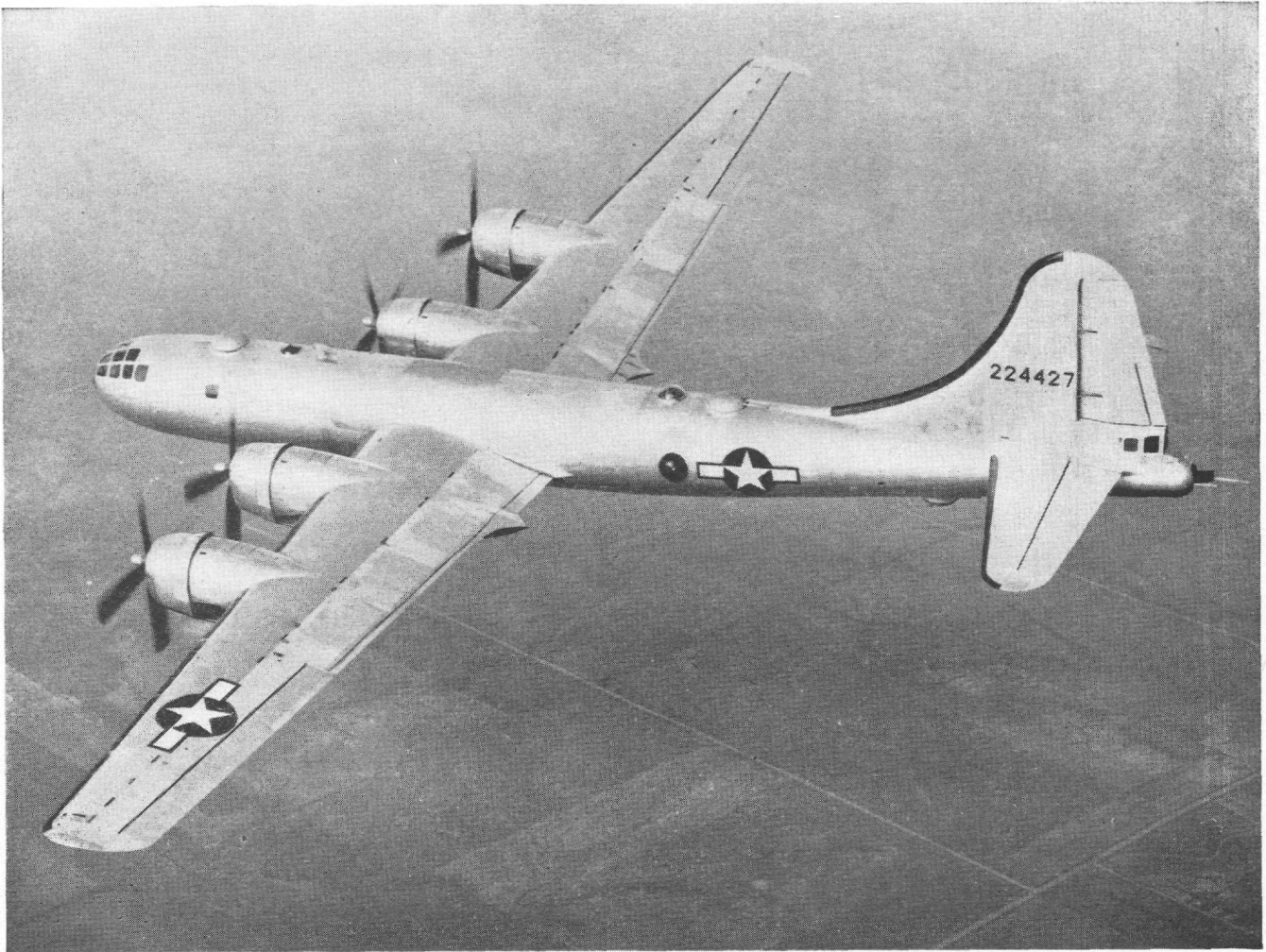
The B-29 is powered by four 2200 horsepower engines. Each of these engines has two turbo-superchargers which serve air to the pressurized cabin as well as to the engines themselves. By keeping the air pressure at ground conditions, it is possible for the crew to move around unrestricted by oxygen masks. If, however, the cabin were punctured, the crew is still safe from the lack of oxygen and the intense cold experienced at high altitudes because emergency masks and electrically heated suits are provided.

One of the most interesting phases of the development of the B-29 was the so-called "Battle of Kansas." In March and April of 1944, the first of these superfortresses were delivered from the

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B-29 Superfortress Electrical Central Control Gunnery System



—Courtesy General Electric

*Most formidable of them all—the giant bomber has enough power to fly unescorted through a hornets' nest of enemy fighters.*

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Boeing Aircraft Plant to the "battlefield" in Kansas. It has been said of this mommoth airfield that it looks like a concrete prairie. Here the giant birds were outfitted for battle. Thousands of men from war plants all over the country had come to install and modify the equipment built by their own companies. By working continually in these three eight hour shifts, seven days a week, it was possible for these men to do several month's work in the short span of three weeks. Much of the work done at night was done by the light of flash lights.

Much of the equipment that goes into the super-bombers is given the "Dalton Test" to see if the gadget is up to requirements. This test, devised by Richard Dalton, a General Electric engineer, is quite simple. The apparatus is just casually

tossed to the concrete floor or runway. If this test is survived, the equipment is said to be shock resistant. It is surprising how many "bugs" have been detected, and subsequently corrected, by this method.

The "Battle of Kansas" is over and won now, but similar battles are being won daily all over the country. The engineers and workers, the soldiers in these battles of production, still have the same feeling of pride as they watch their dreams move down the runways to meet their date with destiny.

Two small negro boys were sitting on a curb. One turned to the other and said, "Ah's five, how old is yo?"

"Ah doan' know. Guess Ah's five, too."

"Does yo dream of wimmen?"

"Nope."

"Then yo is only foh!"